

Bridge #1

1/29/09

I read into what i have to do, and looked at some possible designs

1/30/09

I am creating a spreadsheet in excel so i can keep track day to day how many materials i use. I am also looking as different designs. I am thinking of definitely using a design with diagonal cross beams.

2/2/09

worked more on the bridge aplying supports

2/3/09

i am going to put the bottom supports in

2/4/09

i continued and finished putting the diagonal slats in the bottom of my bridge

Photo 48.jpg

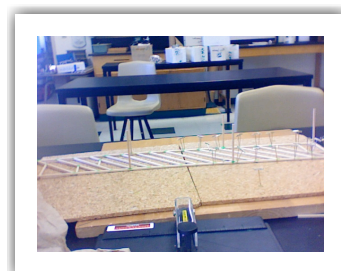
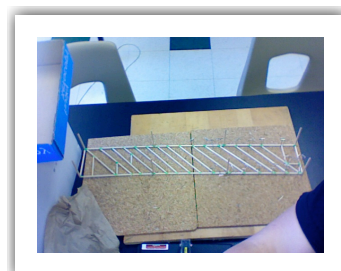


Photo 47.jpg



2/5/09

i added the upper beams, and cut the diagonal beams to connect the top to the bottom to make the bridge more sturdier. i had trouble getting the top beam to stay glued in place, so i had to use push pins and try and hold it on. in order to connect the diagonal beams, i am going to have to lay the bridge on its side, so i can use the t pins ad hold the diagonal beams in place so they can dry just as i did for the bottom of the bridge.

2/9/09

i am working on attaching the bridges side supports

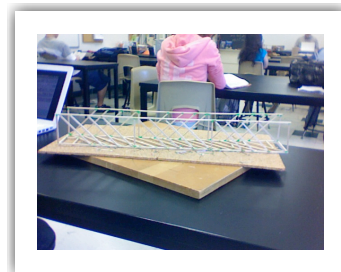
2/10/09

i finished the one side of the bridge and now i am going to finish the other side now and then maybe add some more supports.

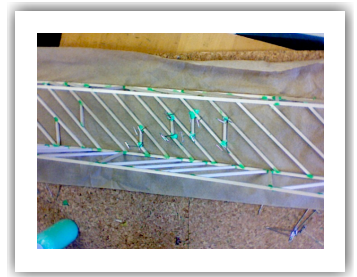
2/11/09


i finished the bridge! i think i might add some more supports though. i added a couple more supports to the bottom and now i am done.

Photo 50.jpg



 these are the extra supports i added to the bottom



 Photo 51.jpg

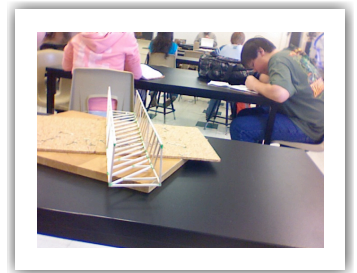
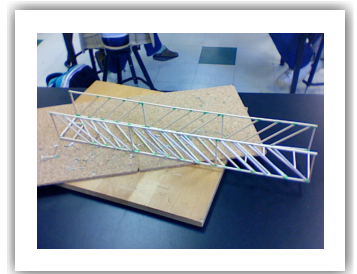



 Photo 52.jpg



 i am going to be building another bridge with a solid bottom to test and see which bridge can hold more weight compared to how much the bridge cost to build and see which bridge is the better value.

Bridge #2

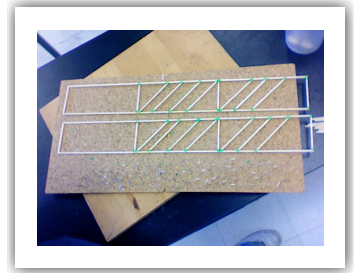
2/12/09

i am working on building my one side

2/13/09

i am putting the diagonal supports in the sides of my bridge

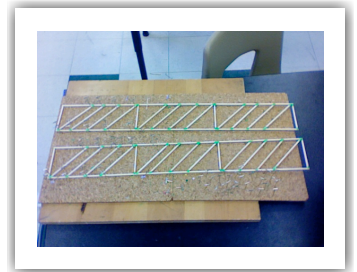
Photo 54.jpg



2/17/09

i'm going to finish attaching the diagonal supports to the sides of my bridge.

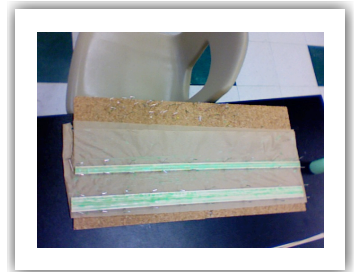
Photo 55.jpg



2/18/09

i am going to try and build the solid bottom to my bridge today. i didnt get finished. it is going to take longer than i thought

Photo 56.jpg



2/19/09

i am almost finished with the botom of my bridge, i have 6 more strips to glue on, am trying to gule two sections together, and it didnt work very well, bc the wod didnt match up, so i think it would work better if you one at a time just glued a wood piece ontp the already solid bottom.

2/20/09

i finished the bottom of my bridge today i just have to let it dry and then attach the sides tomarrow

Photo 57.jpg



2/23/09

i tried to attach the sides today and it didn't work very well at all!! they were bowed as well as the bottom. I had to use safety pins to put through the wood to try and hold it all together. i will have to try and get the pins out tomorrow plus have it all hold together and i don't think it is going to work as well as my first bridge that i built.

2/25/09

the bridge is complete

Photo 58.jpg

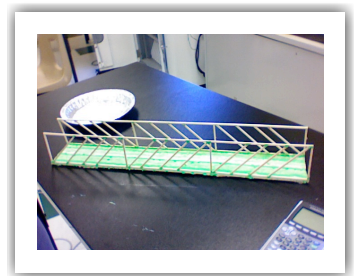


Photo 59.jpg

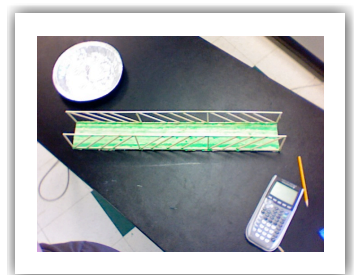
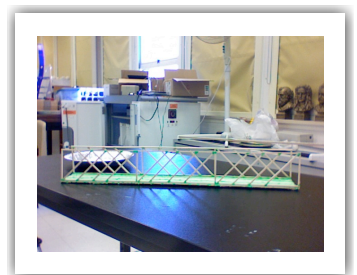


Photo 60.jpg



it was a pain to try and get it to all go together. it didn't work very well. if i were to build another one i would build it in the similar order as the first one. it also cost me \$40 more to build! i will have to test them now and see which is the better value.

2/26/09

i am working on the proposal now.

3/3/09

i am still working on my proposal i am on the explanation of terms

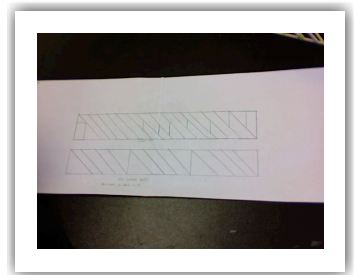
3/4/09

i finished the explanation of terms and i am now working on my scale drawing.

3/5/09

- im still working on the scale drawing

Photo 61.jpg

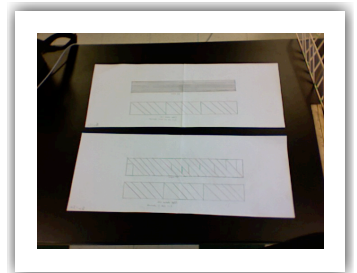


3/6/09

- i finished my scale drawings

- i am working on the proposal now on the features f my bridge, and then i will conduct testing on monday to see how much weight my bridge can withstand.

Photo 62.jpg



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3/9/09

- i tested my bridges today and the video for the testing of the second bridge didn't work, but the first bridge did. the first bridge held 8 bags of sand and the second one held 14. bridge one was the better value, because it cost me over double the amount to build bridge number 2, but it couldn't even hold twice the amount of sand bags.

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aftermath of the first bridge design testing

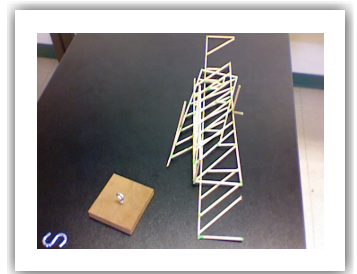


Photo 66.jpg



how much the first bridge held



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Bridge testing # 2

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aftermath of the testing



how much it held



3/10/09

i am just working on figuring out how much weight each bridge held, and working on the wright up.

1 pound = 453.59237 grams

bridge one - bucket = 909 g

sand bag = 475 g * 8 = 3800

909 + 3800 = **4700 g = 10.36 lbs**

bridge two - bucket = 909 g

sand bag = 475 g * 14 = 6650

909 + 6650 = **7559 g = 16.66 lbs**

difference - 7559 - 4700 = 2859 g

Cost of bridge

\$33.93

cost per pound held

\$3.28

Cost of bridge

\$73.79

cost per pound held

\$4.43